

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY



To:

see form PCT/ISA/220

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2005/050228

International filing date (day/month/year)
19.01.2005

Priority date (day/month/year)
28.01.2004

International Patent Classification (IPC) or both national classification and IPC
G11B7/095

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for International preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized Officer

Stemmer, M

Telephone No. +49 89 2399-2282



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050228

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050228

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-9
	No: Claims	1,10,11
Inventive step (IS)	Yes: Claims	9
	No: Claims	1-8,10,11
Industrial applicability (IA)	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Reference is made to the following documents:

D1: US-A-5 202 864 (MORIYA ET AL) 13 April 1993 (1993-04-13)
D2: WO 02/05271 A (DISCCONTROL APS UNDER STIFTELSE; ANDERSEN,
PALLE; PEDERSEN, TOM, SOEND) 17 January 2002 (2002-01-17)

2. The subject-matter of claims 1, 10, 11 is not novel (Art 33(2) PCT) and the subject-matter of claims 3-8 is not involving an inventive step (Art 33(3) PCT) for the following reasons:

- 2.1 As for claim 1 the document D1 discloses (the references in parentheses applying to this document):

A device (fig 1) for scanning an optical disc (1), the disc comprising a pattern (spiral-shaped tracks) of substantially parallel data tracks, the device comprising an optical pick up unit (3,4,5,6,7,8,9,10,11,12,13) for creating, from a light beam, a spot on a data track of the pattern;
means (12) for moving the spot relative to the pattern;
means (14,15,16) for determining a radial tracking error signal, the radial tracking error signal indicating a deviation of the spot relative to the data track, the means for determining the radial tracking error signal being arranged for determining a periodic signal (fig 2,3) from the radial tracking error signal while the spot is radially moving across the pattern, a period of the periodic signal corresponding to a pitch of the data tracks;
and means (col 7 l 42-44) for detecting a tilt angle between an optical axis of the pick up unit and the optical disc, the means for detecting the tilt angle being arranged for detecting an asymmetry in the periodic signal during the period (D1 col 4 l 42 - col 8 l 14; fig 1-3).

The subject-matter of claim 1 is therefore not new in the sense of Article 33(2) PCT.

This applies mutatis mutandis to claims 10 and 11.

- 2.2 As for claims 2-4 the stipulated features are considered to be within the scope what a skilled person, based on common knowledge would take into consideration, to determine the asymmetry of the period signal.

The subject-matter of claims 2-4 can therefore not be considered as involving an inventive step (Article 33(3) PCT).

- 2.3 As for claims 5-7 the stipulated features are considered to be within the scope what a skilled person, based on common knowledge would take into consideration, to access a given location of the optical disk.

The subject-matter of claims 5-7 can therefore not be considered as involving an inventive step (Article 33(3) PCT).

- 2.4 As for claim 8 the problem to be solved by the additional features is regarded as to avoid repeated acquisition of an imperfection of the optical disc (e.g. the tilt angle). To solve the problem D2 (p 8 l 29- p 9 l 15) proposes a solution with features as stipulated in the present claim 8.
A combination departing from the disclosure of D1 with the teaching of D2 is therefore regarded to be obvious.

The solution proposed in claim 8 can therefore not be considered as involving an inventive step (Article 33(3) PCT).

- 2.5 The combination of the features of dependent claim 9 is neither known from, nor rendered obvious by, the available prior art.

The combination of the features of dependent claim 9 achieves the effect that a tilt map of a disc can be established by a small number of measurements when using appropriate tilt models.

The subject-matter of claim 9 could therefore be considered both novel and inventive

**WRITTEN OPINION OF THE
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AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/050228

(Article 33 (2) and (3) PCT)